

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants:	Brian P. LaMothe et al.	§	Confirmation No.:	7536
		§		
Serial No.:	10/085,298	§		
		§		
Filed:	02/28/2002	§	Group Art Unit:	2137
		§		
For:	Method And System Of	§		
	Limiting Use of Imbedded	§		
	Software	§	Examiner:	Nguyen, Minh Dieu

APPEAL BRIEF

Mail Stop Appeal Brief – Patents

Date: July 26, 2006

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants hereby submit this Appeal Brief in connection with the above-identified application. A Notice of Appeal is filed concurrently herewith.

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I. REAL PARTY IN INTEREST

The real party in interest is Daniel Measurement and Control, Inc., a Delaware Corporation, having its principal place of business in Houston, Texas. The Assignment from the inventors to Daniel Measurement and Control, Inc. was recorded on June 8, 2004, at Reel/Frame 015433/0320.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

III. STATUS OF THE CLAIMS

Originally filed claims: 1-61.
Claim cancellations: 1-7 and 16-61¹
Added claim: 62.
Presently pending claims: 8-15 and 62.
Presently appealed claims: 8-15 and 62.

¹ The cancellation of claims 23-61 in response to a Restriction Requirement.

IV. STATUS OF THE AMENDMENTS

No claims were amended after the final Office action dated May 15, 2006.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The specification is directed to methods and systems of limiting use of embedded software.² At least some of the illustrative embodiments are systems for selectively allowing use of embedded software comprising a microcontroller,³ a first non-volatile storage device⁴ coupled to the microcontroller (the first non-volatile storage device storing a plurality of programs executable by the microcontroller, the plurality of programs comprising at least a program to perform flow calculations, a program to perform PLC functions, and a program to perform RTU functions),⁵ and a second non-volatile storage device⁶ coupled to the microcontroller (the second non-volatile storage device storing software license information). The microcontroller refrains from executing at least one of the plurality of programs on the first non-volatile storage device if the software license information on the second non-volatile storage device does not contain an entry allowing use.⁷

² Specification Title.

³ Specification Paragraph [0022], line 1. Hereinafter, citations to the specification take the shorthand form ([paragraph], lines). Thus, this illustrative citation in the shorthand form reads ([0022], line 1). See *also*, Figure 1, element 10.

⁴ ([0022], lines 10-13), Figure 1, element 14.

⁵ ([0020], lines 2-6); ([0025], lines 11-13), Figure 2, elements 38, 40, 42 and 44.

⁶ ([0022], lines 9-11), Figure 1, element 12.

⁷ ([0026], lines 6-9).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 8, 10 and 62 are unpatentable over Mustafa (U.S. Pat. Appl. Pub. 2003/0028786) in view of Allen (U.S. Pat. Appl. Pub. 2001/0034567).

Whether claims 9, 11-12 and 15 are unpatentable over Mustafa in view of Allen and in further view of Hsu (U.S. Pat. No. 5,812,662).

Whether claim 13 is unpatentable over Mustafa, Allen, Hsu and the reference from Microchip Technology Inc. (hereinafter just "Microchip").

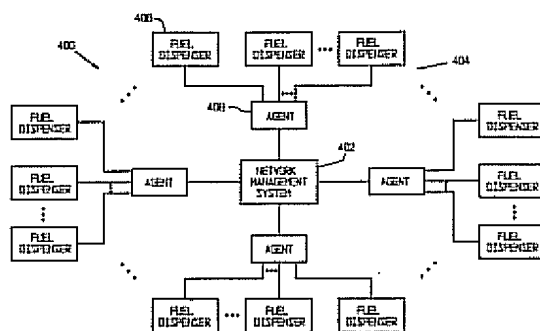
VII. ARGUMENT

A. Claims 8-15 and 62

Claims 8-15 and 62 stand rejected as obvious over at least Mustafa and Allen. Claim 8 is representative of this grouping of claims. The grouping should not be construed to mean the patentability of any of the claims may be determined in later actions (*e.g.*, actions before a court) based on the groupings. Rather, the presumption of 35 U.S.C. § 282 shall apply to each of these claims individually.

Mustafa is directed to a system and method for software anti-piracy licensing and distribution.⁸ In particular, Mustafa is primarily concerned with a dynamic encryption communication scheme to be used between a source of license information (in the rejections of the Office action of May 15, 2006 the dongle 10) and a computer system accessing the license information,⁹ the licensing information used to selectively allow installation and/or execution of programs on the computer system.¹⁰ Thus, in Mustafa the dongle couples directly to the computer system on which software is to be controlled.

Allen is directed to remote management of retail petroleum equipment.¹¹ Allen's Figure 1 is reproduced immediately below for convenience of the discussion.



⁸ Mustafa Title.

⁹ See, *e.g.*, Mustafa Abstract.

¹⁰ Mustafa Paragraph [0038], Figure 2 ("This [Figure 2] flow chart is executed at the computer system.").

¹¹ Allen Title.

In particular, Allen appears to be directed to a network management system 402 that communications with a plurality of individual retail gasoline fuel dispensers 406.¹² The network management system 402 of Allen is charged with:

(i) monitoring the operating performance and current status of the refueling equipment, **(ii) downloading software updates, (iii) reconfiguring the fuel equipment modules,** (iv) conducting troubleshooting and diagnostic operations based upon equipment data uploaded from the refueling station, (v) scheduling service maintenance jobs in response to the diagnostics evaluation, **(vi) maintaining and otherwise controlling any suitable aspects of the refueling station operations,** and (vii) coordinating the management tasks in a manner sufficient to enable concurrent handling of the management demands of various refueling stations.¹³

Thus, in Allen the network management system 402 remotely controls the software that is executed at the end-user devices, such as the fuel dispenser 406.

Representative claim 8, by contrast, specifically recites, "a microcontroller; a first non-volatile storage device coupled to the microcontroller, the first non-volatile storage device storing a plurality of programs executable by the microcontroller, the plurality of programs comprising at least a program to perform flow calculations, a program to perform PLC functions, and a program to perform RTU functions... ." Applicants respectfully submit that Mustafa and Allen fail to teach such a system. Mustafa appears to be silent as to the type of programs to which the Mustafa system may apply. Allen is specifically directed to retail fuel dispensing, and the Office action of May 15, 2006 cites only an alleged teaching of flow calculations.¹⁴ Thus, Mustafa and Allen fail to teach or fairly suggest "a first non-volatile storage device ... a program to perform flow calculations, a program to perform PLC functions, **and** a program to perform RTU functions... ." For this reason alone the rejections should be withdrawn, and the claims set for issue.

¹² Allen Paragraph [0034], Figure 1.

¹³ Allen Paragraph [0040].

¹⁴ Office action of May 15, 2006, Response to Arguments (numbered paragraph 3).

Representative claim 8 further recites, "a second non-volatile storage device coupled to the microcontroller, the second non-volatile storage device storing software license information; and wherein microcontroller refrains from executing at least one of the plurality of programs on the first non-volatile storage device if the software license information on the second non-volatile storage device does not contain an entry allowing use." In Mustafa, the dongle couples directly to the computer system on which software is to be controlled. In Allen, the network management system 402 remotely controls the software that is loaded and executed at the end-user devices. Regardless of how combined, Mustafa and Allen still fail to teach or suggest the claim limitations. The two possible combinations are discussed in turn.

Hypothetically assuming that Allen teaches the three distinct programs (which Applicants do not admit), if Mustafa's dongle connects to Allen's network management system 402, then Mustafa and Allen fail to teach "a first non-volatile storage device coupled to the microcontroller [having the three distinct programs and] a second non-volatile storage device coupled to the microcontroller, the second non-volatile storage device storing software license information" because the three distinct programs reside and execute at the end-user devices of Allen, not the network management system where the dongle connects in this hypothetical.

If, on the other hand, Mustafa's dongle couples to Allen's end-user devices and the end-user devices are operated under the Mustafa system, such a system changes the principle of operation of Allen and renders Allen unsatisfactory for its intended purpose of having the network management system 402 control "(ii) downloading software updates, (iii) reconfiguring the fuel equipment modules ... (vi) maintaining and otherwise controlling any suitable aspects of the refueling station operations."

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention

being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.¹⁵

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.¹⁶

Based on the foregoing, Appellants respectfully submit that the rejections of the claims be reversed, and the claims set for issue.^{17 18}

¹⁵ Manual of Patent Examining Procedures (MPEP), 8th Ed., Rev. 3, August 2005, § 2143.01, p. 2100-138 (emphasis original).

¹⁶ *Id.* at p. 2100-137.

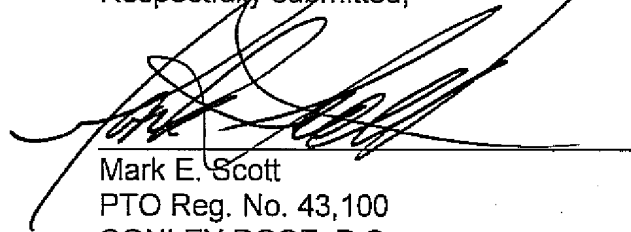
¹⁷ As for the rejections over Mustafa, Allen and Hsu, even if the teachings of Hsu are exactly as the Office action suggests (which Applicants do not admit), given the shortcomings of Mustafa and Allen such rejections fail to teach or suggest the limitations of claims 9, 11-12 and 15.

¹⁸ As for the rejections over Mustafa, Allen, Hsu and Microchip, even if the teachings of Hsu and Microchip are exactly as the Office action suggests (which Applicants do not admit), given the shortcomings of Mustafa and Allen such rejections fail to teach or suggest the limitations of claim 13.

VIII. CONCLUSION

For the reasons stated above, Appellants respectfully submit that the Examiner erred in rejecting all pending claims. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to the Conley Rose, PC Deposit Account No. 03-2769.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark E. Scott', is written over a horizontal line. The signature is stylized and cursive.

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ATTORNEY FOR APPELLANTS

IX. CLAIMS APPENDIX

1. – 7. (Cancelled)

8. (Previously Presented) A system for selectively allowing use of embedded software comprising:

a microcontroller;

a first non-volatile storage device coupled to the microcontroller, the first non-volatile storage device storing a plurality of programs executable by the microcontroller, the plurality of programs comprising at least a program to perform flow calculations, a program to perform PLC functions, and a program to perform RTU functions;

a second non-volatile storage device coupled to the microcontroller, the second non-volatile storage device storing software license information; and

wherein the microcontroller refrains from executing at least one of the plurality of programs on the first non-volatile storage device if the software license information on the second non-volatile storage device does not contain an entry allowing use.

9. (Original) The system as defined in claim 8 wherein the second non-volatile storage device further comprises a read only memory (ROM) device.

10. (Original) The system as defined in claim 9 wherein the interface bus further comprises a serial interface bus.

11. (Original) The system as defined in claim 10 wherein the ROM device further comprises a serial electrically erasable programmable read only memory (serial EEPROM).

12. (Original) The system as defined in claim 10 wherein the serial interface bus further comprises a Serial Peripheral Interface (SPI) bus.

13. (Original) The system as defined in claim 12 wherein the serial EEPROM further comprises a part number 25LC040-I device manufactured by Microchip Technology Incorporated.

14. (Original) The system as defined in claim 10 wherein the serial interface bus further comprises an Inter-Integrated Circuit (I²C) bus.

15. (Original) The system as defined in claim 8 wherein the second ROM device further comprises a flash ROM device.

16.- 61. (Cancelled)

62. (Previously Presented) The system as defined in claim 8 wherein the microcontroller limits the number of instances of the flow program to perform flow calculations, the limit based on license information on the second non-volatile storage device.

X. EVIDENCE APPENDIX

None.

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Reply to final Office action of May 15, 2006

XI. RELATED PROCEEDINGS APPENDIX

None.